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Notice of Allowability

Application No.

10/625,255

Examiner

Ryan Lepisto

Applicant(s)

HO ET AL.

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed 23 July 2003.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ The drawings filed on 23 July 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 10/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 2/05
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael Hall on 09 February 2005.

The application has been amended as follows:

1. Replace "5" in claims 5 to – 4 – to change claim 5 to depend from claim 4.
2. Replace the word "cover" in claim 8, line 9 to – core --.

DETAILED ACTION

Allowable Subject Matter

3. **Claims 1-20** are allowed.

The following is an examiner's statement of reasons for allowance: **Claims 1, 8 and 15** are allowable over the prior art of record because the latter, either alone or in combination, does not disclose nor render obvious a method or apparatus comprising a fiber with a flat end extending beyond a ferrule coated with an annular layer of metal, leaving the central portion of the core uncovered, a back-illuminating photodiode with a back side comprising a metal surface and aperture disposed therein and where the flat end of the core is bonded to the back side of the photodiode so that the annular layer of metal encircles the aperture and is metallically bonded to the metal surface of the

photodiode with the uncovered central portion in alignment with the aperture, in combination with the rest of the claimed limitations.

Claims 2-7, 9-14 and 16-20 are allowable over the prior art of record because they are dependent from allowable claims 1, 8 and 15.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Hockaday (US 5,073,002), (US 5,071,215) and Bischel et al (US 2002/0110328 A1) teach applying solder to a fiber's cladding and mating it to the solder on the surface of a photodiode so the solder tension automatically aligns the optical axis of the fiber and photodiode.
- Henry et al (US 4,326,771), Whitehead et al (US 4,989,051), Muller (DE 2630340 A1) and Goell et al (US 4,118,100) teach mating the end of an optical fiber to an indentation of a photodiode by coating the tip of the fiber with solder or an epoxy.
- Berg et al (US 4,329,190), Bowen et al (US 5,032,898), Lecocq et al (US 6,524,017 B2), Sherwin (US 4,515,432), Ebeling et al (US 6,773,169 B2), Henry et al (US 4,192,574) and Berg et al (US 4,653,847) teach coupling a fiber to a

photodiode by means of a transparent epoxy at the end of the fiber or photodiode.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Lepisto whose telephone number is (571) 272-1946. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ryan Lepisto

Art Unit 2883

Date: 2/14/05

Frank Font

Supervisory Patent Examiner

Technology Center 2800



Brian Healy
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